



Rajiv Gandhi University of Knowledge Technologies

(Catering the Educational Needs of Gifted Rural Youth of A.P)

R.K Valley, Y.S.R Kadapa (Dist)-516330.

HOSPITAL MANAGEMENT

Software Requirement Specification

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This Project report has been submitted in fulfillment of the
requirements for the Degree of Bachelor of Technology in Mini project.



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CERTIFICATE

This is to certify that the project work titled “**HOSPITAL MANAGEMENT SYSTEM**” is a bonafied project work submitted by **G.Chandrasekhar , M.Muniprathap , A.Himabindhu** in the department of COMPUTER SCIENCE AND ENGINEERING in partial fulfillment of requirements for the award of degree of Bachelor of Technology in Computer science and engineering for the year 2021-2022 carried out the work under the supervision.

GUIDE

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ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of any task would be incomplete without the mention of the people who made it possible and whose constant guidance and encouragement crown all the efforts success.

I am extremely grateful to our respected Director, Prof. K. SANDHYA RANI for fostering an excellent academic climate in our institution.

I also express my sincere gratitude to our respected Head of the Department P.HARINADHA for his encouragement, overall guidance in viewing this project a good asset and effort in bringing out this project.

I would like to convey thanks to our guide at college SK.SHALIMASULTHANA for her guidance, encouragement, co-operation and kindness during the entire duration of the course and the academics.

My sincere thanks to all the members who helped me directly and indirectly in the completion of project work. I express my profound gratitude to all our friends and family members for their encouragement.

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ABSTRACT

The Hospital Management System includes registration of patients , storing their details into the system , and also computerized in the pharmacy.The system , and also computerized in the pharmacy.The software has the facility to give a unique id for every patient and stores the clinical details of every patient and hospital test done automatically .It includes a search facility to know the current status of each patient.User can search details of a patient using the unique id.The Hospital Management System can be entered using a username and password.It is accessible either by administrator or receptionist.Only they can add data into the database.The data can be retrieved easily.The interface is very user- friendly.The data are well protected for personal use and makes the data processing very fast.

1)INTRODUCTION

PURPOSE

The purpose of this document is to describe the help in validating with the client that the product which is being delivered, meets what they asked for. This document contains the functional and non-functional requirements of the project and it also contains the guidelines of the project.

PROJECT SCOPE

Hospital Management System is a web application that will allow the patients to make an appointment at the reception to consult a doctor. These are being processed and recorded in a file. Then again the patients diagnosed symptoms related disease details, are being recorded and those files are being stored in special locations. Calculations of dose and quantity are done manually.

As the current system is a file based one, management of the hospital has put much effort on securing the files. The Pharmacy Stock Management system is responsible for proper management of drug stocks, expiry dates of stock to improve the efficiency and the productivity of the organisation.

DESCRIPTION

PRODUCT PERSPECTIVE

The Hospital Management System to keep track of its day to day activities. The fully automated hospital management system which will be developed will eliminate the disadvantages caused by the manual system.

PRODUCT FEATURES

Consultation Management

- Recording the patient details

- Issuing numbers according to doctor channels

- Updating the record with medical prescription.

- Printing bill of doctor charges

Pharmacy/Lab Management

Drug stock management

Record sample collection details

Lab equipment stock management

Lab resources management

USER CLASSES AND CHARACTERISTICS

Admins has the full access to the Hospital Management System which means he is able to manage any activity with regard to the system. Admin is the highest privileged user who can access to the system. He can manages Patients, equipments, generate reports, manage doctors ,keep track of progress of patient details and test details.

DESIGN AND IMPLEMENTATION CONSTRAINTS

System is only accessible within the hospital premises only.

Dtabase is password protected.

Should use less RAM and processing power.

Each user should have individual Id and password.

Only administrator can access the whole system.

OPERATING ENVIRONMENT

Windows 7 or above operating system

MYSQL server

Core i5 processor

4GB Ram

1 TB HardDisk space inServer Machine

SYSTEM FEATURES

FUNCTIONAL REQUIREMENTS

Admin

Insert Patient details:

This action is done to add new Patient details into the database.

Delete /Modify Patient details:

This event is to delete or modify an existing data from the record.

Lab Management/Pharmacy

Register : When new user enters for the first time then they has to register.

Select consultant date : Customer can order food items based on menu.

Login : The patient login to the system by entering valid user id and password for appointment of a consultant doctor.

Logout : After the completion of the record process will logout.

Staff

Collecting the details of the new patients and maintaing the records in the databases.

EXTERNAL INTERFACE REQUIREMENTS

PERFORMANCE REQUIREMENTS

Response Time : The system will give responses within 1 second after checking the patient information and other information.

Capacity : The system supports 1000 people at a time.

Conformity : The system must conform to the accessibility.

HARDWARE INTERFACE

Only the recommended configuration(basic requirements of a computer system) no other specific hardware is required to run the software.

SOFTWARE INTERFACE

Browser to load and view the web page

Operating system

Scripting Language

HTML

CSS

BOOTSTRAP

PHP

MYSQL

NON-FUNCTIONAL REQUIREMENTS

Performance Requirements

The system performance should be fast.

Safety Requirements

System use shall not harm to customers

Security Requirements

System will use secured database.

Users can just read information but they cannot edit or modify anything.

Availability

The system should be available at all times.

User friendly

System should be easily used by the customer.

Efficient

System should be efficient that it won't get hang if heavy traffic of order is placed.

METHODOLOGY

This project will follow Incremental Model. This model is split into several iterations. New software modules are added in each iteration with no or little change in earlier added modules. The development process can go either sequentially or partially.

DESIGN INTRODUCTION

Design is the first step in the development phase for any techniques and principles for the purpose of defining a device, a process or system in sufficient detail to permit its physical realization. Once the software requirements have been analyzed and specified the software design involves three technical activities - design, coding, implementation and testing that are required to build and verify the software.

The design activities are of main importance in this phase, because in this activity, decisions ultimately affecting the success of the software implementation and its ease of maintenance are made. These decisions have the final bearing upon reliability and maintainability of the system. Design is the only way to accurately translate the customer's requirements into finished software or a system.

Design is the place where quality is fostered in development. Software design is a process through which requirements are translated into a representation of software. Software design is conducted in two steps. Preliminary design is concerned with the transformation of requirements into data.

UML DIAGRAMS

Actor:

A coherent set of roles that users of use cases play when interacting with the use cases. An observable result of value of an actor.



Use case:

A description of sequence of actions, including variants, that a system performs yields an observable result of value of an actor. Actor diagram is drawn in an eclipse shape.



UML stands for Unified Modeling Language. UML is a language for specifying, visualizing and documenting the system. This is the step while developing any product after analysis. The goal from this is to produce a model of the entities involved in the project which later need to be built. The representation of the entities that are to be used in the product being developed need to be designed.

USECASE DIAGRAMS:

Use case diagrams model behavior within a system and helps the developers understand of what the user require. The stick man represents what's called an actor.

Use case diagram can be useful for getting an overall view of the system and clarifying that can do and more importantly what they can't do.

Use case diagram consists of use cases and actors and shows the interaction between the use case and actors.

- > The purpose is to show the interactions between the use case and actor.

- > To represent the system requirements from user's perspective.

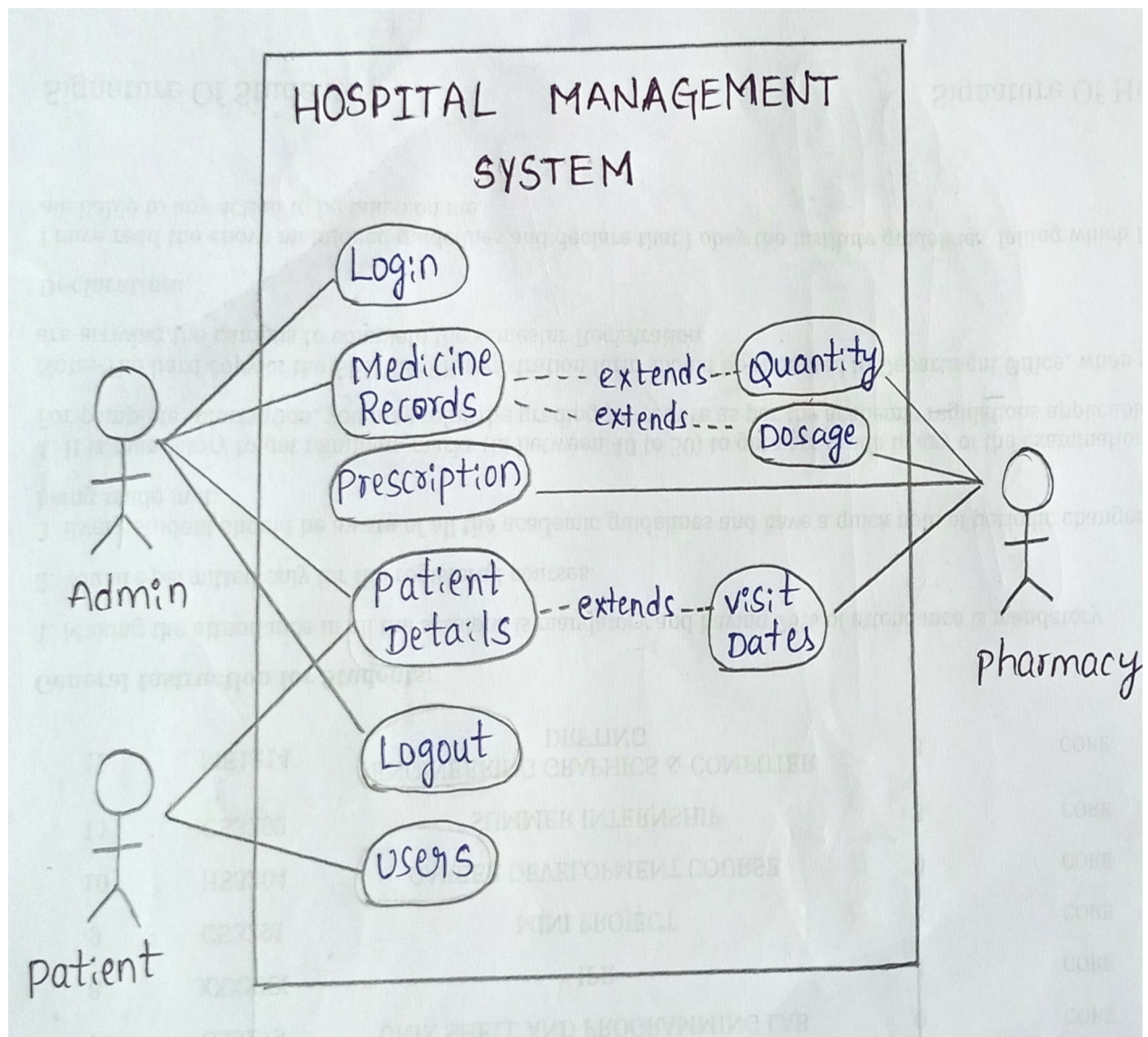
- > An actor could be the end-user of the system or an external system.

USECASE DIAGRAM:

A Use case is a description of set of sequence of actions. Graphically it is rendered as an ellipse with solid line including only its name. Use case diagram is a behavioral diagram that shows a set of use cases and actors and their relationship. It

is an association between the use cases and actors. An actor represents a real-world object, Primary Actor – Sender ,Secondary Actor Receiver.

USE CASE-DIAGRAM(Hospital Management System)



ER Diagram:

The Entity-Relationship (ER) model was originally proposed by Peter in 1976 [Chen76] as a way to unify the network and relational database views. Simply stated the ER model is a conceptual data model that views the real world as entities and relationships. A basic component of the model is the Entity-Relationship diagram which is used to visually represent data objects. Since then wrote his paper the model has been extended and today it is commonly used for database design for the database designer, the utility of the ER model is:

- > It maps well to the relational model. The constructs used in the ER model can easily be transformed into relational tables.

- > It is simple and easy to understand with a minimum of training. Therefore, the model can be used by the database designer to communicate the design to the end user.

- > In addition, the model can be used as a design plan by the database developer to implement a data model in specific database management software.

ER Notation

There is no standard for representing data objects in ER diagrams. Each modeling methodology uses its own notation. The original notation used by Chen is widely used in academics texts and journals but rarely seen in either CASE tools or publications by non-academics. Today, there are a number of notations used; among the more common are Bachman, crow's foot, and IDEFIX.

All notational styles represent entities as rectangular boxes and relationships as lines connecting boxes. Each style uses a special set of symbols to represent the cardinality of a connection. The notation used in this document is from Martin. The symbols used for the basic ER constructs are:

--> **Entities** are represented by labeled rectangles. The label is the name of the entity. Entity names should be singular nouns.

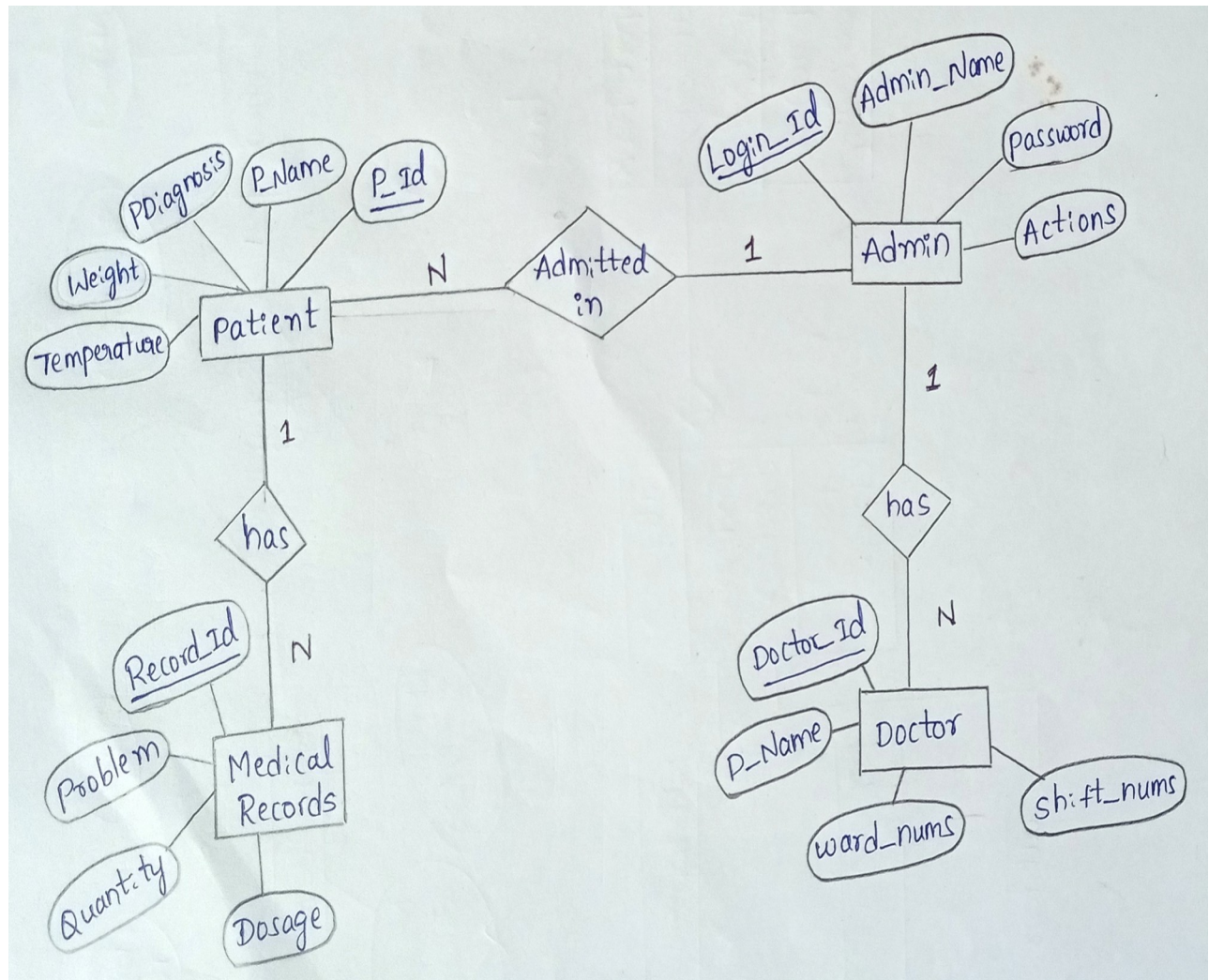
--> **Relationships** are represented by a solid line connecting two entities. The name of the relationship is written above the line. Relationship names should be verbs.

--> **Attributes**, when included, are listed inside the entity rectangle. Attributes which are identifiers are underlined. Attribute names should be singular nouns.

--> **Cardinality** of many is represented by a line ending in a crow's foot. If the crow's foot is omitted, the cardinality is one.

Existence is represented by placing a circle or a perpendicular bar on the line. Mandatory existence is shown by the bar (looks like a 1) next to the entity for an instance is required. Optional existence is shown by placing a circle next to the entity that is optional.

ER-DIAGRAM (Hospital Management System)



Implementation and System Testing

After all phase have been perfectly done, the system will be implemented to the server and the system can be used.

System Testing :

The goal of the system testing process was to determine all faults in our project .The program was subjected to a set of test inputs and many explanations were made and based on these explanations it will be decided whether the program behaves as expected or not.

Our Project went through two levels of testing

1. Unit testing
- 2 .Integration testing

Unit Testing :

Unit testing is commenced when a unit has been created and effectively reviewed .In order to test a single module we need to provide a complete environment i.e. besides the section we would require The procedures belonging to other units that the unit under test calls Non local data structures that module accesses .A procedure to call the functions of the unit under test with appropriate parameters.

Test for the admin module

Testing admin login form - This form is used for log in of administrator of the system. In this form we enter the username and password if both are correct administration page will open otherwise if any of data is wrong it will get redirected back to the login page and again ask the details.

Report Generation: admin can generate report from the main database.

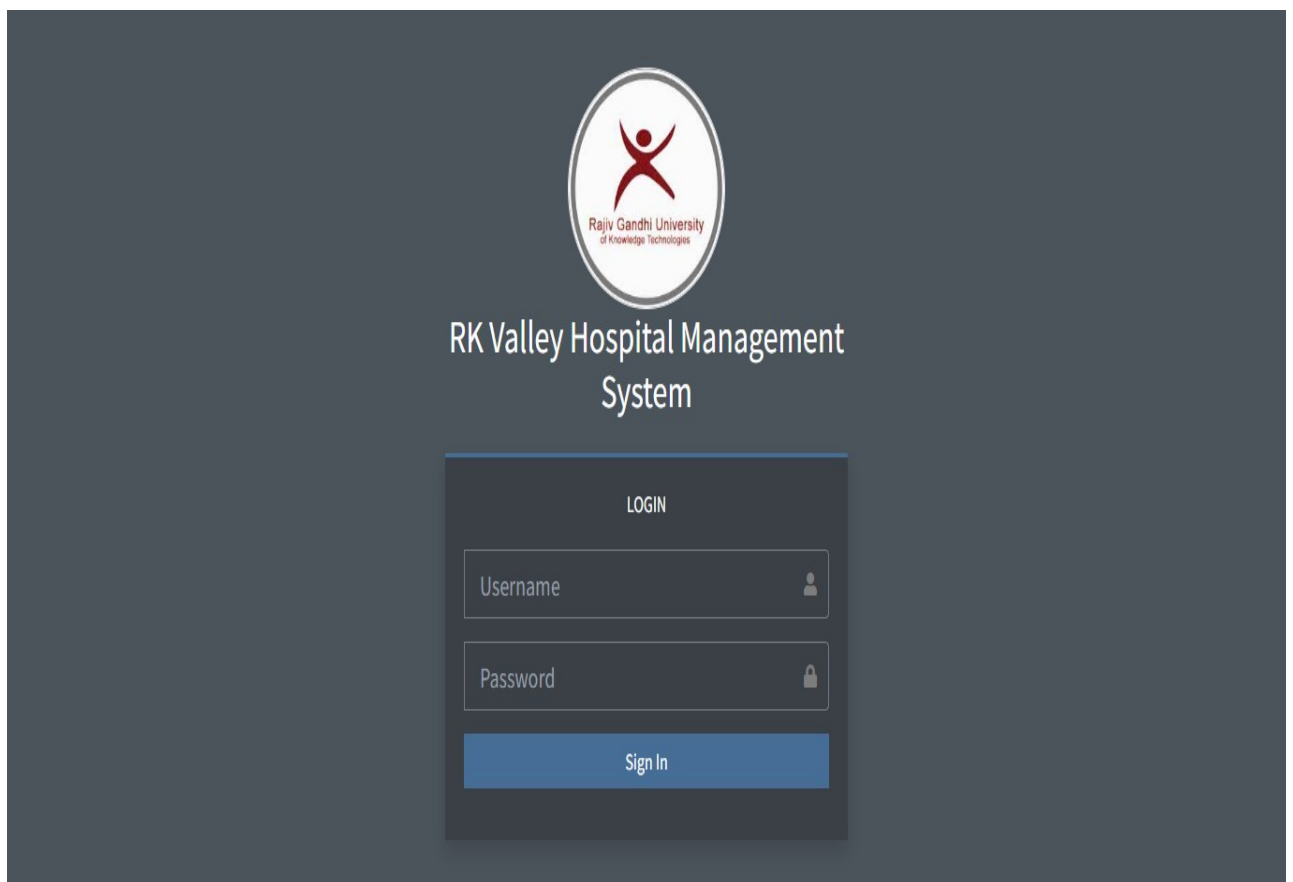
Integration Testing :

In the Integration testing we test various combination of the project module by providing the input.

The primary objective is to test the module interfaces in order to confirm that no errors are occurring when one module invokes the other module.

OUTPUT :

Login Page :-



The image shows a login page for the RK Valley Hospital Management System. At the top center is the logo of Rajiv Gandhi University of Knowledge Technologies, which features a stylized red figure with arms raised inside a white oval. Below the logo, the text "RK Valley Hospital Management System" is displayed in a white, sans-serif font. In the center of the page is a dark gray login box with a blue border. Inside this box, the word "LOGIN" is at the top. Below it are two input fields: "Username" with a user icon and "Password" with a lock icon. At the bottom of the box is a blue button labeled "Sign In".

Rajiv Gandhi University
of Knowledge Technologies

RK Valley Hospital Management
System

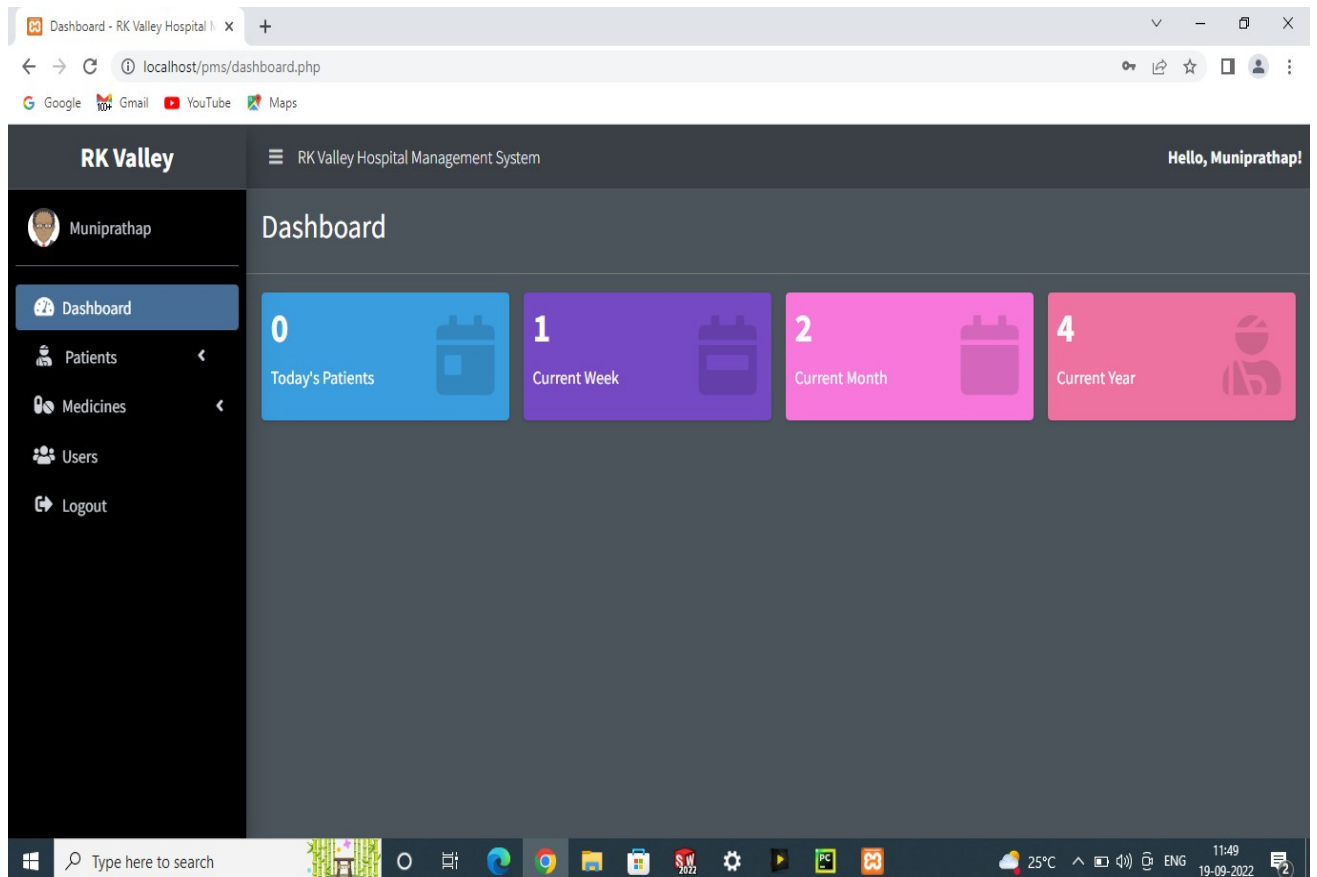
LOGIN

Username

Password

Sign In

Dashboard :-



Patient Details :-

New Prescription - RK VALLEY

localhost/pms/new_prescription.php

GoogleGmailYouTubeMaps

RK Valley

Muniprathap

Dashboard

Patients

New Prescription

Add Patients

Patient History

Medicines

Users

Logout

RK Valley Hospital Management System

Hello, Muniprathap!

New Prescription

Add New Prescription

Select Patient

Visit Date

Next Visit Date

Temperature

Weight

Disease

Select Medicine

Select Packing

Quantity

Dosage

S.No	Medicine Name	Packing	QTY	Dosage	Action
------	---------------	---------	-----	--------	--------

Type here to search

25°C

11:49

19-09-2022

Add Patients :-

The screenshot shows a web browser window with the URL `localhost/pms/patients.php`. The application is titled "RK Valley Hospital Management System" and greets the user as "Hello, Muniprathap!". The left sidebar contains navigation links: Dashboard, Patients (selected), New Prescription, Add Patients, Patient History, Medicines, Users, and Logout. The main content area is titled "Patients" and features an "Add Patients" form. The form has two rows of input fields: the first row contains "Patient Name", "ID", and "DORM"; the second row contains "Date of Birth" (with a calendar icon), "Phone Number", and "Gender" (a dropdown menu labeled "Select Gender"). A "Save" button is located at the bottom right of the form. Below the form, there is a section titled "Total Patients" which is currently empty.

Patients - Clinic's Patient Manage x

localhost/pms/patients.php

Google Gmail YouTube Maps

RK Valley

RK Valley Hospital Management System

Hello, Muniprathap!

Muniprathap

Dashboard

Patients

New Prescription

Add Patients

Patient History

Medicines

Users

Logout

Patients

Add Patients

Patient Name ID DORM

Date of Birth Phone Number Gender

Select Gender

Save

Total Patients

Type here to search

25°C 11:49 19-09-2022

Patient History :-

The screenshot shows a web browser window displaying the 'Patient History' page of the 'RK Valley Hospital Management System'. The browser's address bar shows the URL 'localhost/pms/patient_history.php'. The page has a dark-themed sidebar on the left with a navigation menu. The main content area is titled 'Patient History' and features a search bar with a dropdown menu labeled 'Select Patient' and a 'Search' button. Below the search bar is a table with columns for patient history data.

RK Valley RK Valley Hospital Management System Hello, Muniprathap!

Muniprathap

Dashboard

Patients

New Prescription

Add Patients

Patient History

Medicines

Users

Logout

Patient History

Search Patient History

Select Patient Search

S.No	Visit Date	Disease	Medicine	Packing	QTY	Dosage
------	------------	---------	----------	---------	-----	--------

Type here to search

25°C 11:50 19-09-2022

Add Medicines :-

The screenshot shows a web browser window with the address bar displaying `localhost/pms/medicines.php`. The browser's address bar also shows search engines like Google, Gmail, YouTube, and Maps. The web application has a dark theme. The top header bar contains the text "RK Valley Hospital Management System" and a greeting "Hello, Muniprathap!". The left sidebar menu includes options like "Dashboard", "Patients", "Medicines", "Add Medicine", "Medicine Details", "Users", and "Logout". The "Medicines" section is active, showing a form to "Add Medicine" with a "Medicine Name" input field and a "Save" button. Below the form is a table titled "All Medicines" with columns "S.No", "Medicine Name", and "Action". The table lists four medicines: 1. A, 2. Amoxicillin, 3. Antibiotic, and 4. Antihistamine. Each row has an edit icon in the "Action" column. The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system tray on the right shows the temperature as 25°C, the time as 11:50, and the date as 19-09-2022.

Medicines - Clinic's Patient Man... x

localhost/pms/medicines.php

Google Gmail YouTube Maps

RK Valley

RK Valley Hospital Management System

Hello, Muniprathap!

Muniprathap

Dashboard

Patients

Medicines

Add Medicine

Medicine Name

Save

All Medicines

S.No	Medicine Name	Action
1	A	
2	Amoxicillin	
3	Antibiotic	
4	Antihistamine	

Type here to search

25°C 11:50 19-09-2022

Medicine Details :-

Medicine Details - Clinic's Patient x

localhost/pms/medicine_details.php

Google Gmail YouTube Maps

RK Valley RK Valley Hospital Management System Hello, Muniprathap!

Muniprathap

Dashboard

Patients

Medicines

Add Medicine

Medicine Details

Users

Logout

Medicine Details

Add Medicine Details

Select Medicine Packing Save

Select Medicine

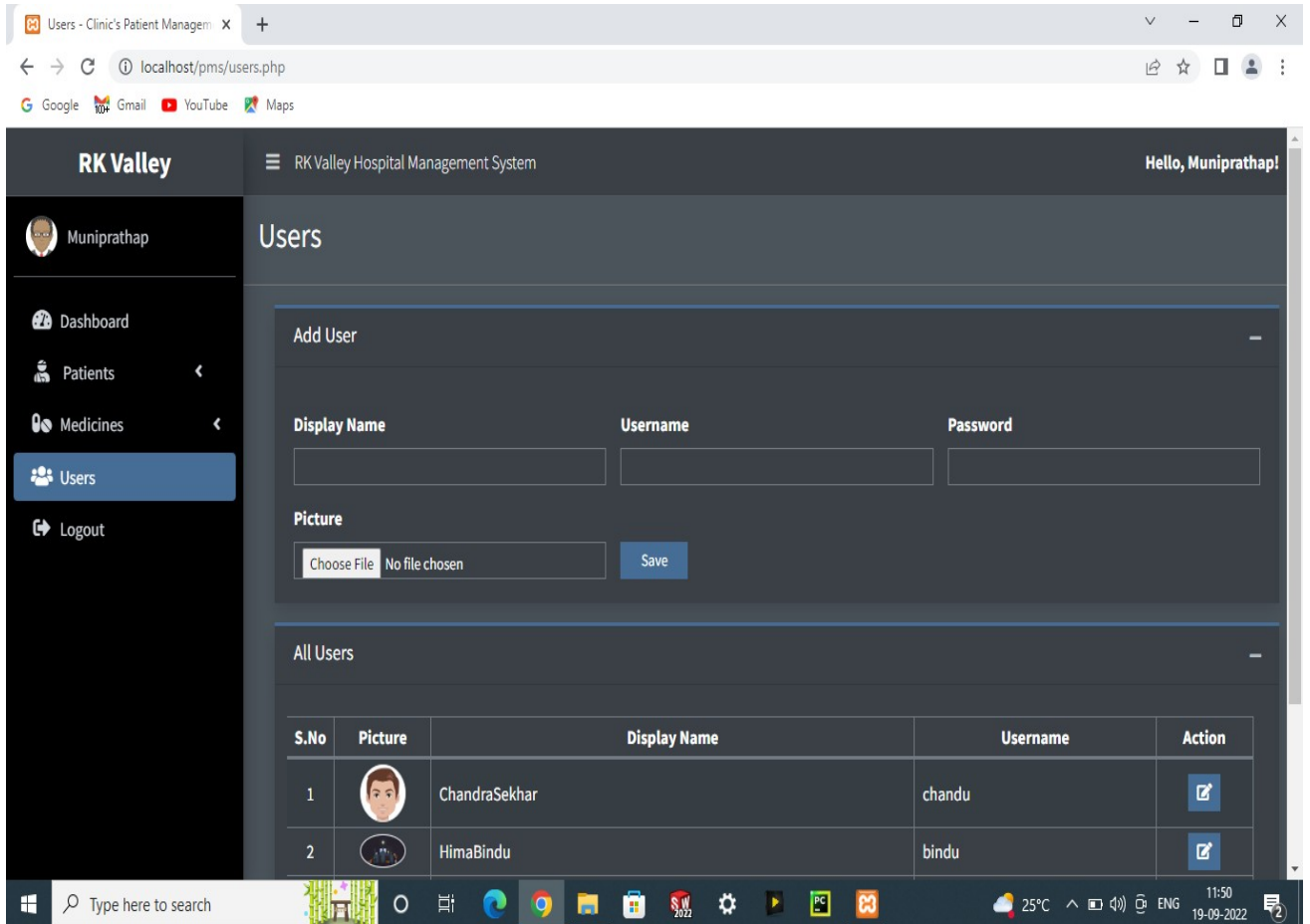
Medicine Details

S.No	Medicine Name	Packing	Action
1	Amoxicillin	50	
2	Amoxicillin	100	
3	Amoxicillin	50	

Type here to search

25°C 11:50 19-09-2022

User Details :-







The screenshot displays a web application interface for managing users. The browser address bar shows the URL `localhost/pms/users.php`. The application header includes the logo "RK Valley", the title "RK Valley Hospital Management System", and a greeting "Hello, Muniprathap!". The sidebar on the left contains navigation links: Dashboard, Patients, Medicines, Users (highlighted), and Logout. The main content area is titled "Users" and features two sections: "Add User" and "All Users".

The "Add User" section contains a form with the following fields:

- Display Name:
- Username:
- Password:
- Picture: No file chosen

The "All Users" section displays a table with the following data:

S.No	Picture	Display Name	Username	Action
1		ChandraSekhar	chandu	
2		HimaBindu	bindu	

The Windows taskbar at the bottom shows the system clock as 11:50 on 19-09-2022, with a temperature of 25°C and language set to ENG.

References :-

For HTML, CSS, BOOTSTRAP

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*******THANKYOU*******